

CLAIMS

What is claimed is:

1 1. A method of logging customized information in a network cache, the
2 method comprising:
3 providing a user interface to allow a user to select a subset of a plurality of
4 fields each field representing a request for content from a client, wherein said
5 subset includes some or all of the fields, wherein each field within the subset is
6 placed in a sequence specified by the user, and wherein said providing includes
7 an ability to create new fields in addition to said plurality of fields;
8 receiving a request for content on the network; and
9 writing to a log file a representation of each field of said subset in the
10 sequence specified by the user.

1 2. The method of claim 1, further comprising:
2 creating a second data structure and a third data structure.

1 3. The method of claim 2, further comprising:
2 for each field specified by the user, storing in a first data structure a value
3 representing the user specified sequence of said field in a location corresponding
4 to said field,
5 logging information corresponding with each field in the subset and
6 obtaining an ASCII representation of the information for each field in said subset;

7 placing the ASCII representation corresponding with each field in the
8 subset in the second data structure; and
9 placing in the third data structure a reference to the position of each ASCII
10 representation of each field in the second data structure, wherein each reference
11 is stored in a location of the third data structure corresponding to the user
12 specified sequence of each field in said subset.

1 4. The method of claim 3, further comprising:
2 sequentially accessing the third data structure to read the position of the
3 ASCII representation of each field of said subset and accessing the second data
4 structure to read the ASCII representation of each field of said subset at the
5 position indicated by the reference; and
6 wherein said writing to the log file further comprises the ASCII
7 representation of each field of said subset from the second data structure being
8 sequentially written using the reference in the third data structure.

1 5. The method of claim 4, further comprising:
2 removing the second data structure and the third data structure.

1 6. The method of claim 1, wherein said available fields and new fields are of
2 variable length.

7. The method of claim 3, wherein each location in the first data structure is pre-initialized to contain a flag before said storing occurs.

8. A device for logging customized information in a network cache, the device comprising:

- a user interface to allow a user to select a subset of a plurality of fields, each field representing a request for content from a client, wherein said subset includes some or all of the fields, wherein each field within the subset is placed in a sequence specified by the user, and wherein the user has an ability to create new fields in addition to said plurality of fields; and
- a log file wherein a representation of each field of said subset is written in the sequence specified by the user.

9. The device of claim 8 further comprising:

- an application module for receiving a request for content on the network;
- and
- a setup and destroy module for dynamically creating and erasing a second data structure and a third data structure in response to requests from the application module.

10. The device of claim 9, further comprising:

- a first data structure for storing a value representing the sequence of each field selected by the user in a location corresponding to each field;

4 a log module for logging information corresponding with each field in the
5 subset and obtaining an ASCII representation of the information for each field in
6 said subset, wherein the log module causes the ASCII representation
7 corresponding with each field in the subset to be stored in the second data
8 structure and wherein the log module further stores in the third data structure a
9 reference to the position of the ASCII representation of each field in the second
10 data structure, said reference being in the sequence specified by the user;
11 an output module for sequentially accessing the third data structure to
12 read the position of the ASCII representation of each field of said subset and
13 accessing the second data structure to read the ASCII representation of each field
14 of said subset at the position indicated by the reference; and
15 the log file further comprising the ASCII representation of each field of
16 said subset from the second data structure being sequentially written using the
17 reference in the third data structure.

1 11. The device of claim 8, wherein said customized information is available
2 for a plurality of protocols.

1 12. A method of logging customized information in a network cache, the
2 method comprising:
3 providing a user interface to allow a user to select a subset of a plurality of
4 fields that may be present in a request for content from a client, wherein said
5 subset includes some or all of the plurality of fields and wherein the user is

6 allowed to specify a sequence in which the fields are to be subsequently output
 7 in a log file;
 8 for each field specified by the user, storing in a first data structure a value
 9 representing the user-specified sequence of said field, in a location of the first
 10 data structure corresponding to said field,
 11 receiving a request for content on the network;
 12 creating a second data structure and a third data structure to correspond
 13 to the request;
 14 obtaining an ASCII representation of the information for each field in said
 15 subset;
 16 examining the first data structure to determine which fields to extract;
 17 extracting information for a plurality of fields from the request;
 18 placing the ASCII representation corresponding with each field in the
 19 subset in the second data structure;
 20 placing in the third data structure a reference to the position of each ASCII
 21 representation of each field in the second data structure, wherein each reference
 22 is stored in a location of the third data structure corresponding to the user
 23 specified sequence of each field in said subset;
 24 sequentially accessing the third data structure to read the position of the
 25 ASCII representation of each field of said subset and accessing the second data
 26 structure to read the ASCII representation of each field of said subset at the
 27 position indicated by the reference;

28 writing to the log file the ASCII representation of each field of said subset
29 from the second data structure as each ASCII representation is sequentially
30 accessed using the reference in the third data structure; and
31 removing the second data structure and the third data structure.

1 13. The method of claim 12, wherein said user interface is a graphical user
2 interface.

1 14. The method of claim 12, wherein said user interface is a command line
2 interface.

1 15. The method of claim 12, wherein said customized information is available
2 for a plurality of protocols.

1 16. The method of claim 12, wherein each location in the first data structure is
2 pre-initialized to contain a flag before the storing occurs.

1 17. A device for logging customized information in a network cache, the
2 device comprising:

3 a user interface to allow a user to select a subset of a plurality of fields that
4 may be present in a request for content from a client, wherein said subset
5 includes some or all of the plurality of fields and wherein the user is allowed to
6 specify a sequence in which the fields are to be subsequently output in a log file;
7 an application module for receiving a request for content on the network;

8 a first data structure for storing a value representing the user-specified
9 sequence of each field in a location corresponding to each field,
10 a setup and destroy module for dynamically creating and erasing a second
11 data structure and a third data structure in response to requests from the
12 application module;
13 a log module for logging information corresponding with each field in the
14 subset and obtaining an ASCII representation of said information for each field
15 in said subset, wherein the log module causes the ASCII representation
16 corresponding with each field in the subset to be stored in the second data
17 structure and wherein the log module further stores in the third data structure a
18 reference to the position of each ASCII representation of each field in the second
19 data structure, wherein each reference is stored in a location of the third data
20 structure corresponding to the user specified sequence of each field in said
21 subset;
22 an output module for sequentially accessing the third data structure to
23 read the position of the ASCII representation of each field of said subset and
24 accessing the second data structure to read the ASCII representation of each field
25 of said subset at the position indicated by the reference; and
26 a log file wherein the ASCII representation of each field of said subset
27 from the second data structure is sequentially written using the reference in the
28 third data structure.

1 18. The device of claim 17, wherein said user interface is a graphical user
2 interface.

1 19. The device of claim 17, wherein said user interface is a command line
2 interface.

1 20. The device of claim 17, wherein said customized information is available
2 for a plurality of protocols.